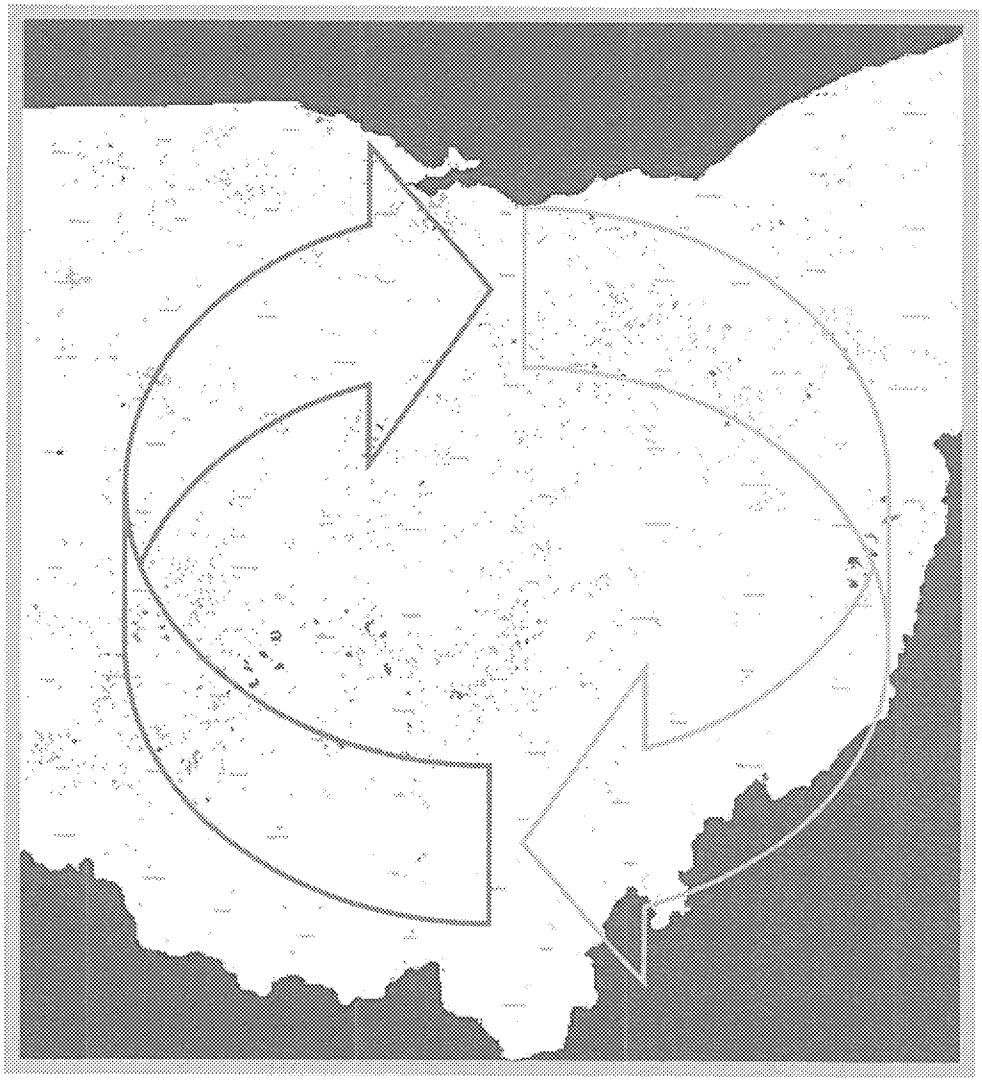
Ohio Environmental Protection Agency

John R. Kasich, Governor
Mary Taylor, Lt. Governor
Craig W. Butler, Director

Division of Surface Water

Application for Transfer
Class B Biosolids Beneficial Use Sites



Division of Surface Water
Beneficial Use Site Transfer Request
Class B Beneficial Use Sites

Biosolids Treatment Works Information

Treatment works name: Dovetail Energy		
Ohio NPDES permit #: 1IN00305*AD		County: Greene
Mailing address: 1146 Herr Road		
City: Fairborn	State: OH	Zip: 45324
Operator of record: Taylor Faecher		
Telephone number: (513) 476-1663		
Email address: info@renergy.com		

Certification Statement

1. I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to ensure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

2. I have read and understand Chapter 3745-40 of the Ohio Administrative Code (OAC) and I agree to beneficially use biosolids in accordance with all applicable beneficial use requirements and restrictions established.

3. I agree to only beneficially use biosolids that have satisfied a pathogen reduction alternative and a vector attraction reduction option and have metals concentration below the pollutant ceiling concentrations as established in Chapter 3745-40 of the Ohio Administrative Code.

4. I agree to maintain all applicable records established in Chapter 3745-40 of the Ohio Administrative Code.

Taylor Faecher
Signature

8/16/17
Date

This form shall be signed by the operator of record for the treatment works, be an original signature, not a copy, and must be less than one year old at the time the application for transfer is submitted to Ohio EPA for review.

Division of Surface Water
Beneficial Use Site Transfer Request
Class B Beneficial Use Sites

Previous Biosolids Treatment Works Information

Treatment works name: Yellow Springs WWTP		
Ohio NPDES permit #: 1PC00013		County: Greene
Mailing address: 3835 Grinnell Road		
City: Yellow Springs	State: OH	Zip: 45387
Operator of record:		
Telephone number:		
Email address:		

Notification Statement

1. I certify that I have been informed of the potential transfer of the biosolids beneficial use sites detailed within the application for transfer.

2. I agree to maintain all applicable records established in Chapter 3745-40 of the Ohio Administrative Code.

Signature[1] 08/14/17 Date

Original signatures, not copies, must be less than one year old at the time the application for transfer is submitted to Ohio EPA for review.

[1] This form shall be signed by the operator of record for the previous treatment works.

Division of Surface Water
Beneficial Use Site Transfer Request
Class B Beneficial Use Sites

Owner Consent for Beneficial Use

Beneficial use site owner[1]: Lukhart Farms		
Mailing address: 1782 Fawcett Rd		
City: Xenia	State: OH	Zip: 45385
Telephone number: 937-903-7688		
Email address: lukhartbuffalofarm@gmail.com		

Certification Statement

1. I agree to allow biosolids generated by the treatment plant identified on Form AFT-1 to be beneficially used on my property at agronomic rates.

2. I understand that the treatment plant that was previously authorized to beneficially use Class B biosolids on the site(s) identified in this application will no longer be authorized to beneficially use Class B biosolids on the site(s) identified in this application.

3. I agree to allow federal, state and local regulatory staff access to the beneficial use site for the purposes of inspecting and authorizing the beneficial use site, beneficially using biosolids, collecting and analyzing samples from the beneficial use site. I reserve the right to ask the above parties for proper identification at any time.

4. I certify that I am holder of legal title to the property described on application form AFT-4 or am authorized by the holder to give consent for the land application of biosolids and that there are no restrictions to the granting of consent under this form.

Signature[2] Owner Lukhart Farms — 8/16/17 Date

Original signatures, not copies, must be less than one year old at the time the application for transfer is submitted to Ohio EPA for review.

[1] For purposes of this form, "beneficial use site owner" means the person who owns the legal rights to the proposed beneficial use site.

[2] In the event the owner of the beneficial use site changes, Form AFT-3 must be revised and resubmitted to Ohio EPA.

Division of Surface Water
Beneficial Use Site Transfer Request
Class B Beneficial Use Sites

Form AFT-3
Beneficial Use Site Operator Consent for Beneficial Use

Beneficial use site operator[1]: Dave Linkhart		
Mailing address: 1782 Fawcett Rd		
City: Xenia	State: Oh	Zip: 45385
Telephone number: 937-903-7688		
Email address: linkhartbuffalofarm@gmail.com		

Certification Statement

I agree to be responsible for complying with all applicable beneficial use requirements established in Chapter 3745-40 of the Ohio Administrative Code.

Signature[2] 8/16/12 Date

Original signatures, not copies, must be less than one year old at the time the application for transfer is submitted to Ohio EPA for review.

[1] For purposes of this form, "beneficial use site operator" means the person who plants, grows, harvests or otherwise manages feed crops, fiber crops, food crops or pasture land on the proposed beneficial use site.

[2] In the event the operator of the beneficial use site changes, Form AFT-4 must be revised and resubmitted to Ohio EPA.

Division of Surface Water
Beneficial Use Site Transfer Request
Class B Beneficial Use Sites

Form AFT-4

Beneficial User Information

Beneficial user[1]: Dovetail Energy		
Contact person: Taylor Faecher		
Mailing address: 1146 Herr Road		
City: Fairborn	State: OH	Zip: 45324
Telephone number: (513) 476-1663		
Email address: tfaecher@renergy.com		

Certification Statement

I agree to be responsible for complying with all applicable beneficial use requirements established in Chapter 3745-40 of the Ohio Administrative Code.

Taylor Faecher
Signature

8/16/17
Date

Original signatures, not copies, must be less than one year old at the time the application for transfer is submitted to Ohio EPA for review.

[1] For purposes of this form, the beneficial user means the person who sprays or spreads Class B biosolids onto the surface of the beneficial use site, injects below the surface of the beneficial use site, or incorporates into the soil of the beneficial use site, for the purpose of providing an agronomic benefit.

[2] In the event the beneficial user of the beneficial use site changes, Form AFT-5 must be revised and resubmitted to Ohio EPA.

Division of Surface Water
Beneficial Use Site Transfer Request
Class B Beneficial Use Sites

Form AFT-5
Current Beneficial Use Site Information

Ohio EPA site I.D.: 29-00033	
Field site I.D.: LINK-16	
County: Greene	Township: Xenia
Treatment works name: Yellow Springs WWTP	
Ohio NPDES permit #: 1PC00013	

Date of Last Beneficial Use	Agronomic Rate (dry tons/acre)	Soil Phosphorus			Agronomic Rate Utilized (Check Only One)	
		Date of Soil Analysis	Result (PPM)	Analysis Method (Check Only One)		
1993		9/1/2017	21	☐ Bray-Kurtz P1 ☒ Mehlich 3	Nitrogen <250 lb/acre P_2O_5 256 - 500 lb/acre P_2O_5	Single-Year P_2O_5 Multi-Year P_2O_5 P-Index

A copy of the agronomic rate calculation performed for the most recent beneficial use event must be included.

Is this beneficial use site subject to cumulative loading rates (CPLR)?	Pollutant	CPLR to date (lb/acre)
☒ No ☐ Yes If "Yes", the table must be completed.	Arsenic	
	Cadmium	
	Copper	
	Lead	
	Mercury	
	Molybdenum	
	Nickel	
	Selenium	

	Zinc	

Form AFT-6
New Beneficial Use Site Information

Field site I.D.: GRS-12-02	
Latitude: 39.71522	Longitude: -83.8969

Type of crops to be grown:

Crop Type	Expected Yield
Corn	1 7 0
Soybeans	5 5
Wheat	
Pasture	
Hay	
Other:	

The application must also include all of the following:

- ☐ An aerial map of the beneficial use site that clearly identifies the entrance of the beneficial use site from the nearest road and all applicable isolation distances as established in Chapter 3745-40 of the Ohio Administrative Code;
- ☐ A vicinity road map at or near the township level that clearly identifies the beneficial use site with all roads labeled;
- ☐ A copy of the agronomic rate calculation performed for the most recent beneficial use event on the beneficial use site; and
- ☐ A copy of the most recent soil test results identified in this form.

Division of Surface Water
Beneficial Use Site Transfer Request
Class B Beneficial Use Sites

Form AFT-5
Current Beneficial Use Site Information

Ohio EPA site I.D.: 29-00427	
Field site I.D.: GR-YS-03	
County: Greene	Township: Xenia
Treatment works name: Yellow Springs WWTP	
Ohio NPDES permit #: 1PC00013	

Date of Last Beneficial Use	Agronomic Rate (dry tons/acre)	Soil Phosphorus			Agronomic Rate Utilized (Check Only One)	
		Date of Soil Analysis	Result (PPM)	Analysis Method (Check Only One)		
1993		9/1/2017	21	☐ Bray-Kurtz P1 ☒ Mehlich 3	Nitrogen <250 lb/acre P_2O_5 256 - 500 lb/acre P_2O_5	Single-Year P_2O_5 Multi-Year P_2O_5 P-Index

A copy of the agronomic rate calculation performed for the most recent beneficial use event must be included.

Is this beneficial use site subject to cumulative loading rates (CPLR)?	Pollutant	CPLR to date (lb/acre)
☒ No ☐ Yes If "Yes", the table must be completed.	Arsenic	
	Cadmium	
	Copper	
	Lead	
	Mercury	
	Molybdenum	
	Nickel	
	Selenium	

	Zinc	

Form AFT-6
New Beneficial Use Site Information

Field site I.D.: GRS-12-02	
Latitude: 39.71879	Longitude: -83.90138

Type of crops to be grown:

Crop Type	Expected Yield
Corn	1 7 0
Soybeans	5 5
Wheat	
Pasture	
Hay	
Other:	

The application must also include all of the following:

- ☐ An aerial map of the beneficial use site that clearly identifies the entrance of the beneficial use site from the nearest road and all applicable isolation distances as established in Chapter 3745-40 of the Ohio Administrative Code;
- ☐ A vicinity road map at or near the township level that clearly identifies the beneficial use site with all roads labeled;
- ☐ A copy of the agronomic rate calculation performed for the most recent beneficial use event on the beneficial use site; and
- ☐ A copy of the most recent soil test results identified in this form.

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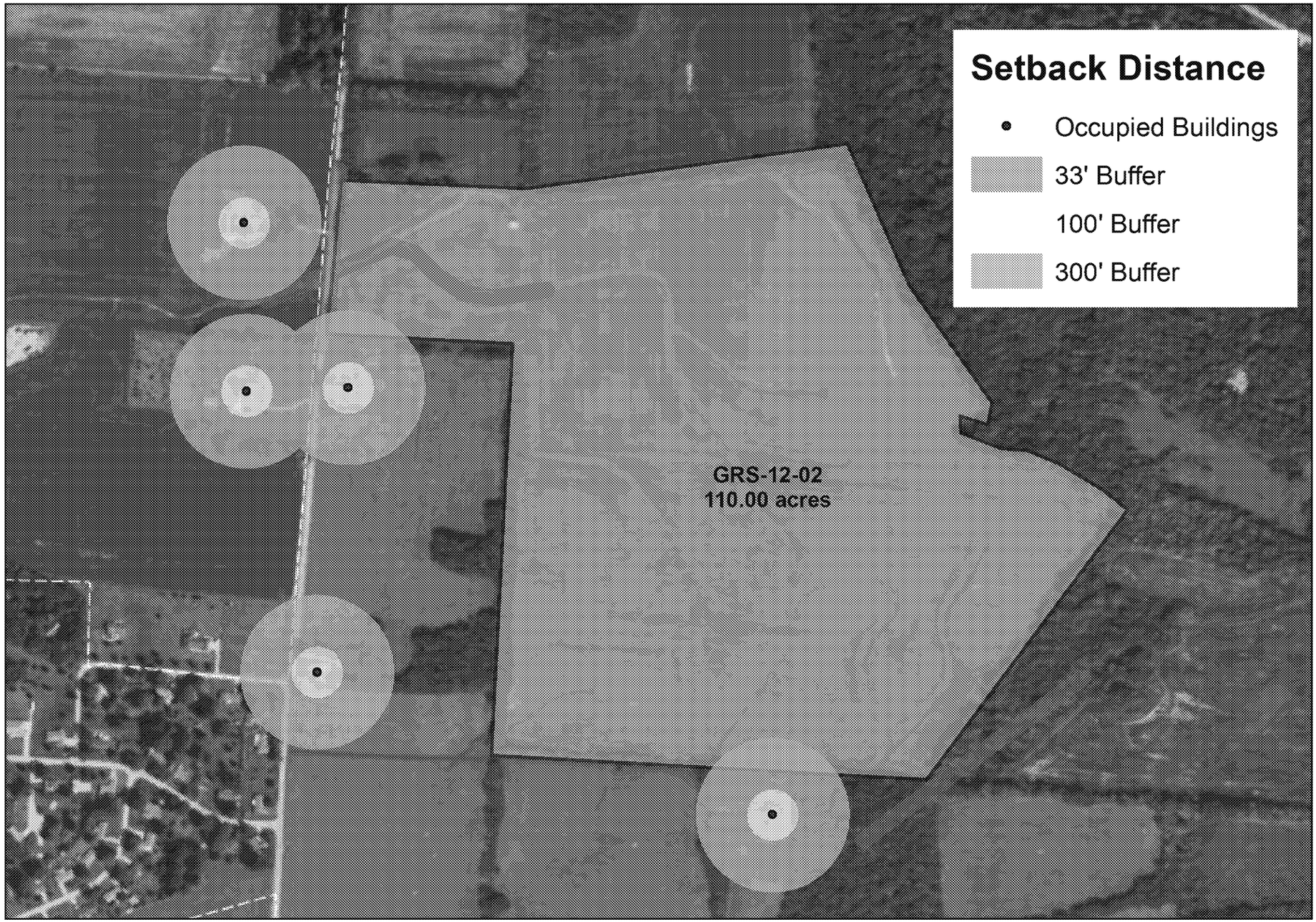
GRS-12-02 Setback Distance



Setback Distance		
GRS-12-02		
Total Area: 110.00 acres		
Setbacks:		
	Residence - 300' Buffer	1.56 acres
	Residence - 100' Buffer	0 acres
	Surface Waters - 33' Buffer	1.76 acres
	Total Setback Area:	3.32 acres

Soil Map


83° 54' 27" W
83° 53' 14" W
39° 43' 17" N
39° 42' 41" N
250800
250900
251000
251100
251200
251300
251400
251500
251600
251700
251800
251900
252000
252100
252200
252300
252400
252500
4400900
4400800
4400700
4400600
4400500
4400400
4400300
4400200
4400100
4400000
4399900
4399800
MtC2
EeB
MtB
OcB
MhC2
MhD3
MhD2
MhB
OcA
MhB2
MtB3
CrA
Stevenson Rd
Kinsey Rd
Map Scale: 1:7,920 if printed on A landscape (11" x 8.5") sheet.
N
Meters
0
100
200
400
600
Feet
0
350
700
1400
2100
Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 17N WGS84

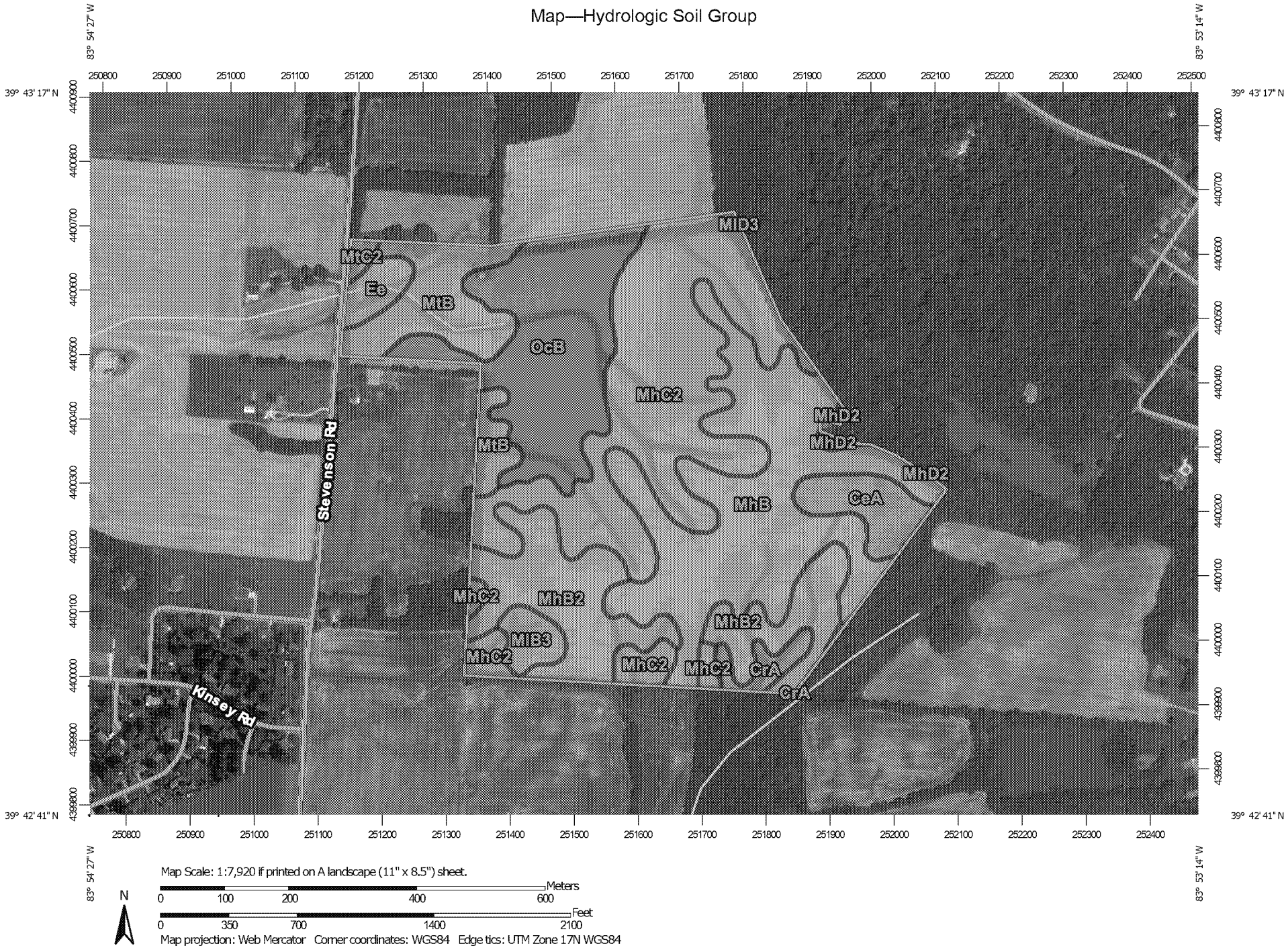
Map Unit Legend

Greene County, Ohio (OH057)			
Map Unit Symbol	**Map Unit Name**	**Acres in AOI**	**Percent of AOI**
CeA	Celina silt loam, 0 to 2 percent slopes	3.9	3.6%
CrA	Crosby silt loam, Southern Ohio Till Plain, 0 to 2 percent slopes	1.6	1.5%
Ee	Eel loam	1.9	1.7%
MhB	Miamian silt loam, 2 to 6 percent slopes	26.6	24.2%
MhB2	Miamian silt loam, 2 to 6 percent slopes, eroded	15.7	14.3%
MhC2	Miamian silt loam, 6 to 12 percent slopes, moderately eroded	30.7	27.9%
MhD2	Miamian silt loam, 12 to 18 percent slopes, eroded	0.4	0.3%
MlB3	Miamian clay loam, 2 to 6 percent slopes, severely eroded	1.9	1.8%
MlD3	Miamian clay loam, shallow to dense till substratum, 12 to 18 percent slopes, severely eroded	0.0	0.0%
MtB	Milton silt loam, 2 to 6 percent slopes	9.1	8.3%
MtC2	Milton silt loam, 6 to 12 percent slopes, moderately eroded	0.5	0.5%
OcB	Ockley silt loam, Southern Ohio Till Plain, 2 to 6 percent slopes	17.6	16.0%
Totals for Area of Interest		**110.0**	**100.0%**


Map—Depth to Any Soil Restrictive Layer
83° 54' 27" W
83° 53' 14" W
39° 43' 17" N
39° 42' 41" N
250800
250900
251000
251100
251200
251300
251400
251500
251600
251700
251800
251900
252000
252100
252200
252300
252400
252500
4400900
4400800
4400700
4400600
4400500
4400400
4400300
4400200
4400100
4400000
4399900
4399800
MhC2
Ee
MtB
OcB
MhD3
MhC2
MhD2
MhD2
MhD2
MhB
CeA
MtB
Stevenson Rd
MhC2
MhB2
MhB2
MtB3
MhC2
MhC2
MhC2
CrA
CrA
Kinsey Rd
Map Scale: 1:7,920 if printed on A landscape (11" x 8.5") sheet.
N
Meters
0
100
200
400
600
Feet
0
350
700
1400
2100
Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 17N WGS84

Table—Depth to Any Soil Restrictive Layer

Depth to Any Soil Restrictive Layer— Summary by Map Unit — Greene County, Ohio (OH057)				
Map unit symbol	**Map unit name**	**Rating (centimeters)**	**Acres in AOI**	**Percent of AOI**
CeA	Celina silt loam, 0 to 2 percent slopes	76	3.9	3.6%
CrA	Crosby silt loam, Southern Ohio Till Plain, 0 to 2 percent slopes	91	1.6	1.5%
Ee	Eel loam	>200	1.9	1.7%
MhB	Miamian silt loam, 2 to 6 percent slopes	91	26.6	24.2%
MhB2	Miamian silt loam, 2 to 6 percent slopes, eroded	84	15.7	14.3%
MhC2	Miamian silt loam, 6 to 12 percent slopes, moderately eroded	>200	30.7	27.9%
MhD2	Miamian silt loam, 12 to 18 percent slopes, eroded	69	0.4	0.3%
MlB3	Miamian clay loam, 2 to 6 percent slopes, severely eroded	>200	1.9	1.8%
MlD3	Miamian clay loam, shallow to dense till substratum, 12 to 18 percent slopes, severely eroded	42	0.0	0.0%
MtB	Milton silt loam, 2 to 6 percent slopes	76	9.1	8.3%
MtC2	Milton silt loam, 6 to 12 percent slopes, moderately eroded	76	0.5	0.5%
OcB	Ockley silt loam, Southern Ohio Till Plain, 2 to 6 percent slopes	168	17.6	16.0%
Totals for Area of Interest			**110.0**	**100.0%**


Map—Hydrologic Soil Group
83° 54' 27" W
83° 53' 14" W
39° 43' 17" N
39° 42' 41" N
250800
250900
251000
251100
251200
251300
251400
251500
251600
251700
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251900
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252100
252200
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252500
4400900
4400800
4400700
4400600
4400500
4400400
4400300
4400200
4400100
4400000
4399900
4399800
MhD3
MhC2
EeB
MtB
OcB
MhC2
MhD2
MhD2
MhD2
MtB
MhB
CcA
Stevenson Rd
MhC2
MhB2
MhB2
MtB3
MhC2
MhC2
MhC2
CrA
CrA
Kinsey Rd
Map Scale: 1:7,920 if printed on A landscape (11" x 8.5") sheet.
N
Meters
0
100
200
400
600
Feet
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350
700
1400
2100
Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 17N WGS84

Table—Hydrologic Soil Group

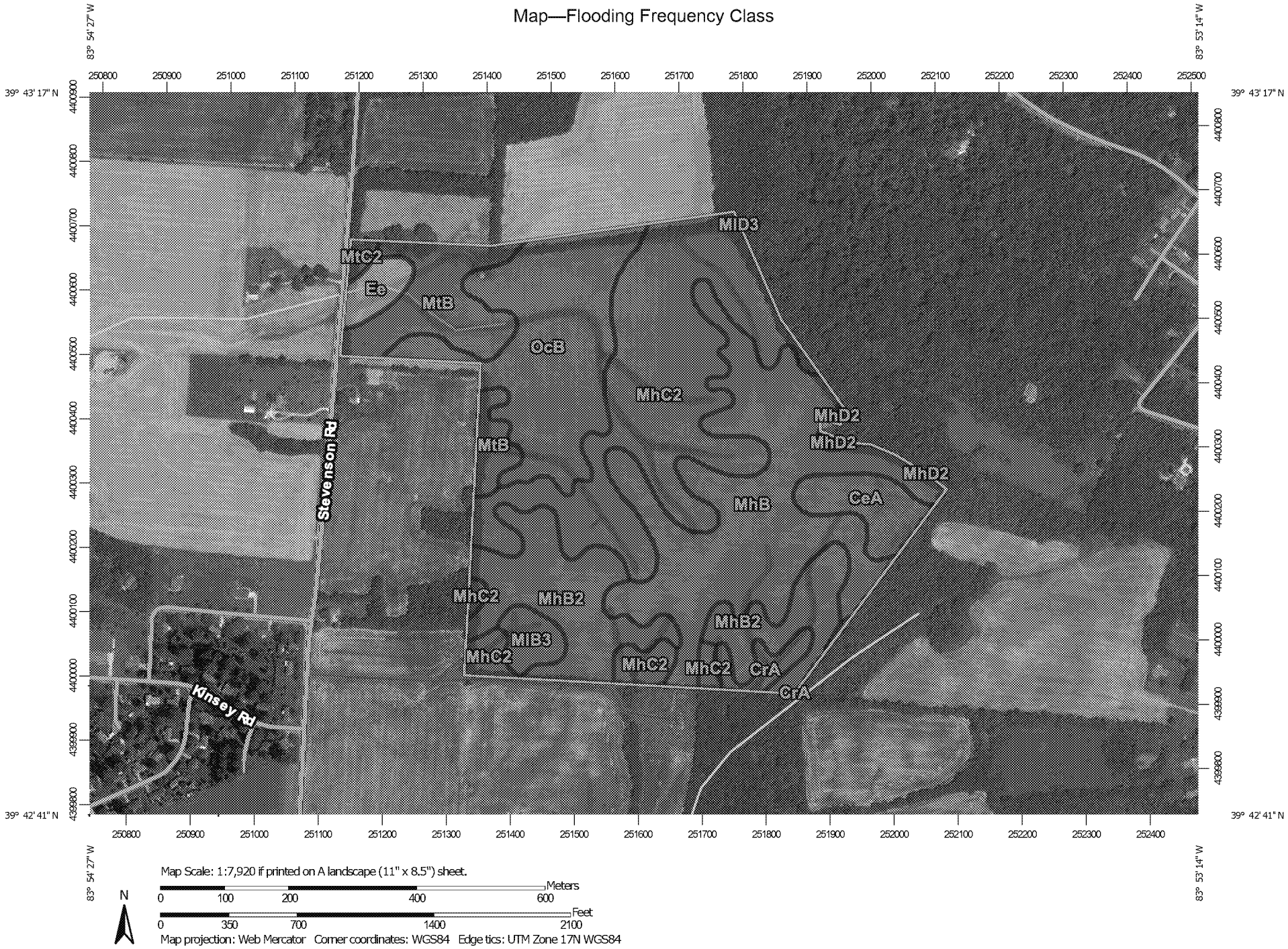
Hydrologic Soil Group— Summary by Map Unit — Greene County, Ohio (OH057)				
Map unit symbol	**Map unit name**	**Rating**	**Acres in AOI**	**Percent of AOI**
CeA	Celina silt loam, 0 to 2 percent slopes	C/D	3.9	3.6%
CrA	Crosby silt loam, Southern Ohio Till Plain, 0 to 2 percent slopes	C/D	1.6	1.5%
Ee	Eel loam	C	1.9	1.7%
MhB	Miamian silt loam, 2 to 6 percent slopes	C	26.6	24.2%
MhB2	Miamian silt loam, 2 to 6 percent slopes, eroded	C	15.7	14.3%
MhC2	Miamian silt loam, 6 to 12 percent slopes, moderately eroded	C	30.7	27.9%
MhD2	Miamian silt loam, 12 to 18 percent slopes, eroded	C	0.4	0.3%
MlB3	Miamian clay loam, 2 to 6 percent slopes, severely eroded	C	1.9	1.8%
MlD3	Miamian clay loam, shallow to dense till substratum, 12 to 18 percent slopes, severely eroded	D	0.0	0.0%
MtB	Milton silt loam, 2 to 6 percent slopes	C	9.1	8.3%
MtC2	Milton silt loam, 6 to 12 percent slopes, moderately eroded	C	0.5	0.5%
OcB	Ockley silt loam, Southern Ohio Till Plain, 2 to 6 percent slopes	B	17.6	16.0%
Totals for Area of Interest			**110.0**	**100.0%**

Map—Depth to Any Soil Restrictive Layer

Table—Depth to Any Soil Restrictive Layer

Depth to Any Soil Restrictive Layer— Summary by Map Unit — Greene County, Ohio (OH057)				
Map unit symbol	**Map unit name**	**Rating (centimeters)**	**Acres in AOI**	**Percent of AOI**
CeA	Celina silt loam, 0 to 2 percent slopes	76	3.9	3.6%
CrA	Crosby silt loam, Southern Ohio Till Plain, 0 to 2 percent slopes	91	1.6	1.5%
Ee	Eel loam	>200	1.9	1.7%
MhB	Miamian silt loam, 2 to 6 percent slopes	91	26.6	24.2%
MhB2	Miamian silt loam, 2 to 6 percent slopes, eroded	84	15.7	14.3%
MhC2	Miamian silt loam, 6 to 12 percent slopes, moderately eroded	>200	30.7	27.9%
MhD2	Miamian silt loam, 12 to 18 percent slopes, eroded	69	0.4	0.3%
MlB3	Miamian clay loam, 2 to 6 percent slopes, severely eroded	>200	1.9	1.8%
MlD3	Miamian clay loam, shallow to dense till substratum, 12 to 18 percent slopes, severely eroded	42	0.0	0.0%
MtB	Milton silt loam, 2 to 6 percent slopes	76	9.1	8.3%
MtC2	Milton silt loam, 6 to 12 percent slopes, moderately eroded	76	0.5	0.5%
OcB	Ockley silt loam, Southern Ohio Till Plain, 2 to 6 percent slopes	168	17.6	16.0%
Totals for Area of Interest			**110.0**	**100.0%**

Map—Flooding Frequency Class



Table—Flooding Frequency Class

Flooding Frequency Class— Summary by Map Unit — Greene County, Ohio (OH057)				
Map unit symbol	**Map unit name**	**Rating**	**Acres in AOI**	**Percent of AOI**
CeA	Celina silt loam, 0 to 2 percent slopes	None	3.9	3.6%
CrA	Crosby silt loam, Southern Ohio Till Plain, 0 to 2 percent slopes	None	1.6	1.5%
Ee	Eel loam	Frequent	1.9	1.7%
MhB	Miamian silt loam, 2 to 6 percent slopes	None	26.6	24.2%
MhB2	Miamian silt loam, 2 to 6 percent slopes, eroded	None	15.7	14.3%
MhC2	Miamian silt loam, 6 to 12 percent slopes, moderately eroded	None	30.7	27.9%
MhD2	Miamian silt loam, 12 to 18 percent slopes, eroded	None	0.4	0.3%
MlB3	Miamian clay loam, 2 to 6 percent slopes, severely eroded	None	1.9	1.8%
MlD3	Miamian clay loam, shallow to dense till substratum, 12 to 18 percent slopes, severely eroded	None	0.0	0.0%
MtB	Milton silt loam, 2 to 6 percent slopes	None	9.1	8.3%
MtC2	Milton silt loam, 6 to 12 percent slopes, moderately eroded	None	0.5	0.5%
OcB	Ockley silt loam, Southern Ohio Till Plain, 2 to 6 percent slopes	None	17.6	16.0%
Totals for Area of Interest			**110.0**	**100.0%**

lb/A

BROOKSIDE LABORATORIES, INC. 74155-13

SOIL AUDIT AND INVENTORY REPORT

Name Dovetail Bio Energy City Fairborn State OH

Independent Consultant Brookside Consultants of Ohio, Inc. Date 09/01/2017

Sample Location	GRS-12-02		-				
Sample Identification							
Lab Number			0017-1				
Total Exchange Capacity (ME/100 g)			15.11				
pH (H_2O 1:1)			6.8				
Organic Matter (360°C LOI) %			3.97				
Estimated Nitrogen Release		lb/A	90				
ANIONS	SOLUBLE SULFUR*	ppm	10				
ANIONS / PHOSPHORUS	MEHLICH III	lb/A P as P_2O_5	96				
		ppm of P	21				
	BRAY II	lb/A P as P_2O_5	160				
		ppm of P	35				
	OLSEN	lb/A P as P_2O_5					
		ppm of P					
EXCHANGEABLE CATIONS	CALCIUM*	lb/A	4162				
		ppm	2081				
	MAGNESIUM*	lb/A	748				
		ppm	374				
	POTASSIUM*	lb/A	292				
		ppm	146				
	SODIUM*	lb/A	30				
		ppm	15				
BASE SATURATION PERCENT							
	Calcium	%	68.86				
	Magnesium	%	20.63				
	Potassium	%	2.48				
	Sodium	%	0.43				
	Other Bases	%	4.60				
	Hydrogen	%	3.00				
EXTRACTABLE MINORS							
	Boron* (ppm)		0.72				
	Iron* (ppm)		162				
	Manganese* (ppm)		176				
	Copper* (ppm)		2.37				
	Zinc* (ppm)		4.60				
	Aluminum* (ppm)		483				
OTHER TESTS	Soluble Salts (mmhos/cm)						
	Chlorides (ppm)						

* Mehlich III Extractable